

REMARKS

In the above-identified final Office Action, Claims 1-8, 10-16 and 25-27 were examined. Claims 1-8, 10-16 and 25-26 were rejected; and Claim 27 is objected to. Claim 9 has been previously canceled, and Claims 17-24 have been previously withdrawn. Applicants amend Claims 1, 4, 14, and 25; and cancel Claim 27. Applicants point out that amendments to independent Claims 1, 14, and 25 incorporate limitations of Claim 27 objected to as allowable if rewritten in independent form. Applicants respectfully request reconsideration of Claims 1-8, 10-16, and 25-26 as amended in view of at least the following.

I. Claims Rejected under 35 U.S.C. §102

The Patent Office rejects Claims 1-2, 8, 10-11 and 25 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,653,700 to Chau, et al. ("Chau"). It is axiomatic that to be anticipated, every limitation of a claim must be disclosed in a single reference.

Applicants respectfully disagree with the rejection above and submit that independent claims 1 and 25 are patentable over the cited references for at least the reason that the cited references do not teach or suggest a silicon alloy material disposed in each of the first junction region and the second junction region such that a surface of the first junction region and a surface of the second junction region are in a non-planar relationship with the surface of the substrate, and the silicon alloy material extends below the surface of the substrate, as required by amended Claims 1 and 25. The amendment to independent Claims 1 and 25 include limitations from Claim 27 objected to by the Examiner as allowable if rewritten in independent form.

Specifically, Chau fails to teach or suggest the above noted limitation of the claims as silicon alloy layer 320 does not extend below the surface of the substrate. Likewise, U.S. Patent No. 6,682,965 issued to Noguchi, et al. ("Noguchi") teaches silicon epitaxial layers 33 and 34 form on source drain 14 and 15, but does not teach a silicon alloy layer. Finally, Kim, U.S. Patent Publication No. 2003/0186508 A1, ("Kim") teaches etch stop layer 140 of silicon nitride on silicide layers 137a and 137b

over lightly doped source/drain region 125 extending toward heavily doped source/drain region 130, but does not teach the silicon alloy material limitations noted for the claims above. Hence, since neither Chau, Noguchi, Kim, nor the combination teach the above-noted limitations of amended independent Claims 1, 14 and 25, Applicants respectfully request the Patent Office withdraw the rejection above for those claims.

Applicants assert that dependent claims 2, 8, and 10-11, being dependent upon allowable base Claim 1, as amended, are allowable for at least the reasons described. Thus, Applicants respectfully request the Patent Office withdraw the rejection above for those dependent claims.

II. Claims Rejected under 35 U.S.C. § 103

The Patent Office rejects Claims 3-7, 14-16 and 26 under 35 U.S.C. §103(a) as being unpatentable over Chau, et al. ("Chau"). To render a claim obvious, all elements to that claim must be taught or suggested by at least one properly combined referenced.

Applicants respectfully disagree with the rejections above and submit that dependent Claims 3-7 being dependent upon allowable base Claim 1 are patentable over the cited references for at least the reasons cited above with respect to amended independent Claim 1. Hence, Applicants respectfully request the Patent Office withdraw the rejection above for these dependent claims.

In addition, with respect to Claims 3, Applicants traverse that it is well known in the art that the surface of the first and second junction region are superior to the top surface of the substrate by a length in the range of between 5 nanometers and 150 nanometers, and request that the Patent Office cite a reference in support of that position (see MPEP § 2144.03).

Likewise, with respect to Claim 4, Applicants traverse that it is well known in the art to select the first junction region and second junction region defining a depth in the range of between 30 nanometers and 250 nanometers below the surface of the substrate, and request the Patent Office cite a reference in support of that position see (MPEP § 2144.03).

Next, Applicants respectfully disagree with the rejection above and submit that independent claim 14 is patentable over the cited references for at least the reason that the cited references do not teach or suggest a silicon alloy material disposed in each of the first junction region and the second junction region such that a surface of the first junction region and a surface of the second junction region are in a non-planar relationship with the surface of the substrate, and the silicon alloy material extends below the surface of the substrate, as required by amended Claim 14. The amendment to independent Claim 14 includes limitations from Claim 27 objected to by the Examiner as allowable if rewritten in independent form.

The arguments above for amended claims 1 and 25 apply here as well. Hence, since neither Chau, Noguchi, Kim, nor the combination teach the above-noted limitations of amended independent Claims 14, Applicants respectfully request the Patent Office withdraw the rejection above for that claim. Applicants assert that dependent claims 15-16 being dependent upon allowable base Claim 14, as amended, are allowable for at least the reasons described. Thus, Applicants respectfully request the Patent Office withdraw the rejection above for those dependent claims.

In addition, for Claim 14, Applicants traverse that it would have been obvious to one of ordinary skill in the art at the time of the invention to use a silicon alloy material that has a lattice spacing different than a lattice spacing of the substrate, and request that the Patent Office cite any references in support of that position (MPEP § 2144.03).

Since the cited references do not teach the above noted limitation of Claim 25, Applicants assert that dependent Claim 26 being dependent upon allowable base Claim 25 is also allowable. Hence, Applicants respectfully request the Patent Office withdraw the rejection above for dependent Claim 26.

Furthermore, with respect to Claim 26, Applicants traverse that it would have been obvious to one of ordinary skill at the time of the invention to use a silicon alloy material having a lattice space indifferent than the lattice spacing of the substrate, and request that the Patent Office cite a reference in support of that position (MPEP § 2144.03).

The Patent Office rejects Claims 12-13 under 35 U.S.C. § 103(a) as being unpatentable over Chau in view of Kim.

Since the cited references do not teach the above-noted limitations of Claim 1, Applicants assert that Claims 12-13, being dependent upon allowable base Claim 1 are also allowable. Hence, Applicants respectfully request the Patent Office withdrew the rejection above for those dependent claims.

III. Allowable Subject Matter

Applicants note with appreciation the Patent Office's finding Claim 27 objected to is being dependent upon a rejected base claim, but allowable if rewritten in independent form. Applicants have rewritten Claim 27 in independent form as amended Claim 25, and have included limitations of Claim 27 in independent Claims 1 and 14 as well.

CONCLUSION

Applicants have amended the claims to recite features that are not taught or suggested by the references. No new matter is introduced by the Applicant's claim amendments, which are supported in Applicant's specification and are necessary for placing the present application in condition for allowance.

In view of the foregoing, it is believed that all claims now pending, namely Claims 1-8, 10-16, and 25-26 patentably define the present application over the prior art of record, and are therefore in condition for allowance; and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207-3800, ext. 784.

Respectfully submitted,
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Dated: 5/20/05

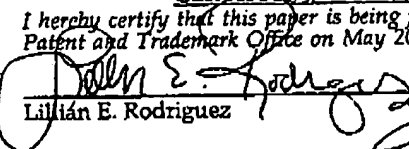
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